

September 8, 2011

Ex Parte Notice

Ms. Marlene H. Dortch, Secretary Federal Communications Commission 445 12th Street, S.W. Washington, D.C. 20554

Connect America Fund, WC Docket No. 10-90; A National Broadband Plan for Our Future, GN Docket No. 09-51; Establishing Just and Reasonable Rates for Local Exchange Carriers, WC Docket No. 07-135; High-Cost Universal Service Support, WC Docket No. 05-337; Developing a Unified Intercarrier Compensation Regime, CC Docket 01-92; Federal-State Joint Board on Universal Service, CC Docket No. 96-45; Lifeline and Link-Up, WC Docket No. 03-109

Dear Ms. Dortch:

On July 20, 2011, Larry Thompson, CEO of Vantage Point Solutions (VPS), and Mike Romano, Sr. Vice President of Policy for NTCA, participated in an FCC Ex Parte. During the meeting, the FCC referenced a previous Ex Parte held on September 14th, 2009, where Calix Networks and Jaguar Communications (Jaguar) presented information that included per household Fiber to the Premises (FTTP) costs that Jaguar has experienced in past deployments. On July 20, 2011, the FCC questioned why the costs presented by Jaguar appeared to be significantly lower than the costs that have been presented by VPS in the past. Not being familiar with the Jaguar costs, Mr. Thompson was not able to respond to the FCC's question. Following the July 20 Ex Parte, VPS contacted Calix and Jaguar to investigate reasons for these cost discrepancies.

After discussions with both Donny Smith (Jaguar) and David Russell (Calix), the reasons for the cost discrepancies between VPS and Jaguar became clearer. The most significant difference was that most of the data presented in the FCC Ex Parte by Calix/Jaguar were based on cost per "home passed." The VPS numbers are all cost per "home served." In the case of the Calix/Jaguar data, the cost per home passed includes mainline construction costs but do not include all of the costs for drops, electronics, or electronic installation. The VPS costs include all costs to connect and turn up all the subscribers passed. In order to properly compare the Jaguar data to the VPS data, we must first identify areas of similar customer density and then convert the VPS data to "home passed" rather than "home served."

The VPS and Jaguar data contained construction estimates for densities of 5 to 9 housing units per square mile. The VPS cost per home served at these densities range from \$5,000 to \$8,000, but when converted to homes passed, the cost of deployment would be reduced to \$3,000 to \$5,000. Jaguar's cost per home passed for this customer density ranged from \$1,700 to \$3,500.

Although the VPS numbers still appear to be higher than that Calix/Jaguar numbers, the remaining differences can be explained in part by the fact that VPS included costs that were not in the Calix/Jaguar numbers. These included:

- Central Office Fiber Management –The Calix/Jaguar costs do not include the cost of fiber main distribution frames, fiber trough, and central office fiber patchcords or their installation costs in their estimates. These costs are included in the VPS estimates.
- Internal Costs -The VPS model assumes that all costs with the FTTH construction and installation are performed by contractors. The contractor pricing includes loaded labor rates, insurance, training, staff utilization, capital investments, overheads, and profit. Calix/Jaguar assumed the use of internal resources for these installations and construction services, such as splicing, placing ONTs and drops. Jaguar's loaded labor rates did not include capital investments or profits.
- Electronics and OSP Engineering Vantage Point included engineering fees for both electronic equipment and outside plan construction in their estimates. The Calix/Jaguar costs did not include engineering fees. Jaguar used internal labor for these items.

In addition to differences between what components were included in the cost estimates, there were a few significant differences between design requirements and project specifics that also affected costs. Those that were identified are listed below.

- PON Versus Dedicated Fiber Design –The Calix/Jaguar costs were based on GPON technology
 using a "fiber-lean" distributed splitter OSP design which has the lowest initial cost of any FTTP
 OSP design available today. The VPS design used a dedicated fiber design, which has a higher
 initial cost, but VPS believes it is more "future proof" and the added flexibility may result in a
 lower cost design over the life of the plant.
- Geographic Diversity The Calix/Jaguar estimates involved primarily projects in Minnesota. The VPS estimates involve companies that are located across the country many of which are in areas with construction costs that are higher than Minnesota. Also, the cost to deploy broadband is more expensive (per home passed) in areas of lower density. The lowest housing density represented in the Calix/Jaguar model was 5 housing units per square mile. Over half of the rural areas from the VPS costs have densities under 5 housing units per square mile. Some of VPS data area densities are as low as 0.1 housing units per square mile.

It is not uncommon for the actual construction costs to be lower than the VPS estimates. Since the VPS estimates are often used to secure funding for the project and obtain approval from the RLEC board of directors, they tend to be high enough to ensure that the estimate is sufficient to account for changes in design, changes in market conditions, and some inflationary adjustments.

The differences outlined above provide sufficient evidence to conclude that comparing the VPS estimates to Jaguar's is not comparing "apples to apples". Both approaches to estimating the costs to complete an FTTH network build may be valid within the context of an individual operator's situation, assuming the ground rules are properly understood. VPS and Jaguar both feel confident in their estimates of costs presented to the FCC.

Please let me know if you have any additional questions of comments.

Sincerely,

Lary Thompson, PE CEO

Vantage Point Solutions

Donny Smith CEO

Jaguar Communications

Dave Russell
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Calix